

THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT \$5 PER ANNUM, IN ADVANCE.

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Vol. I

THIS publication is the successor of the late
AMERICAN FARMER,

(which is discontinued,) and is published at the same office, at five dollars per year, payable in advance.

When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

American Farmer Establishment.

BALTIMORE: TUESDAY, FEBRUARY 17, 1835.

A CARD.—Those of the subscribers to this paper, who happen to owe any thing on the books of the old American Farmer, are respectfully reminded, that the two concerns are *entirely distinct*, being no longer kept in the same office nor even the same city. The conductor of this paper is not the agent for the settlement of the American Farmer accounts, nor is the agent for the latter, in any manner, authorised to act for this paper. Instances of missending letters to each instead of the other, have recently occurred, which render this notice necessary.

THE PROLIFIC LIMA BEAN.

Linnæan Botanic Garden, Flushing, Feb. 9, 1835.
To the Editor of the Farmer and Gardener.

DEAR SIR:—We think the point has at length been attained, of obtaining a substitute for Lima Beans, suited to a more northern climate, than that very tender variety. The *Prolific Lima* is of recent introduction, and not having been cultivated beyond the limits of two or three gardens, is absolutely unknown to the American public.—It is white, or rather cream-coloured, nearly the size of the small Lima, but exceeding it in thickness, and has a peculiarly rich appearance, which is verified by its quality. It fully equals, and it is even contended that it excels both the other Lima varieties in richness, is at least two weeks earlier, and its produce is far greater—we think we may say four-fold. Like the Lima, it is used as a shell bean, and we think from its various advantages it promises to rival that variety even here, and to supersede it in more northern latitudes. We do not invite applications for it, having only a small supply of two bushels, but in the Autumn of the present year all applicants can receive such quantities as they desire. The Dwarf Bonavista Bean also deserves particular notice for its remarkable

richness and delicacy, and may be considered as holding the same rank in this respect, among the dwarf or bush varieties, that the Lima does among the climbers.—It is also exceedingly prolific.

Yours, very respectfully,

WM. PRINCE & SONS.

GUINEA CORN.

Benton, Lowndes County, Jan. 23d, 1835.

To the Editor of the Farmer & Gardener.

DEAR SIR:—Inclosed you have some of the Guinea Corn Seed.—It should be sown very thin in drills, about three feet from drill to drill. In cutting, where it is desirable to save seed, leave one stalk to every foot or two; all the lateral shoots should be taken off, at least every ten days.—It requires little or no work, unless the ground is very grassy. I prefer it to the Gama Grass, or any other I have ever seen for feeding in a green or uncured state, and I am of opinion that it will yield more than any other grass in a cured state, as a crop can be gathered from it each month, or every three weeks, from May until it is destroyed by the frost. When it first springs up, it has a very delicate appearance, but in a short time it becomes very strong, and from a single root, will raise from ten to twenty shoots that will grow from two to four feet high in ten or fifteen days, according to the season and soil. Though it grows well in every kind of soil that will produce any kind of vegetation, yet a rich loam with a little sand and moderately dry is best.

The Gama Grass Seeds I will forward immediately, according to directions.

Yours, with sentiments of the highest regard,
WM. B. JOHNSON.

The Farmer.—The farmer should have a thorough knowledge of soils, and the best and most improved methods of cultivation; he should be ready to adopt the improvements that tend to the saving of labour and expense, and the increasing of products. If there is a way to make two blades of grass grow, (and there are many such ways,) where but one grew before, he should know it, and give himself and his country the benefit of it. If a breed of stock is found, more kind for milk or fat, than he had before, his attention should be alive to the subject.

Every farmer, who has natural understanding, ought to be a well informed man, in reading and thinking, in theory and practice; such we all

ought to be, and such the farmers of this country can be.—*James.*

EDUCATION OF THE STOMACH.—We know that all the appetites are allied to one another; that they all form physiological habits; and that these habits have an almost uncontrollable influence over the moral man. We cannot, therefore, be too guarded in the judicious education of the stomach, if we may be allowed such an expression. For there cannot be the least doubt, that thousands of adults might this day have enjoyed a good character, sound health, and happiness, who have lost all through neglect on this point.

When Anatomy, Physiology and Hygiene shall assume an importance at least equal to Arithmetic, Mensuration and Surveying in our schools, then, and not till then, shall we properly value the education of the physiological functions.—Then may we expect to see the efforts of the head, the heart and the hands united in the amelioration of the condition of man. Then shall we see a rapid decrease in the cases of bodily disease, as well as in the degradation of morals arising from the intemperate indulgence of the appetites. Even the dyspeptic himself, who has always lived a borderer on insanity will then be restored to his natural vigor of body and mind.—*Dr. Keagy.*

The London New Monthly, for January, is an unusually interesting number. We extract the following description of an Irish cottage from one of the articles, as peculiarly graphic:

"Tell me of the cottage, Loggin."

"God bless you, Ma'am, you're cruel fond of hearing of cottages; sure the history of most of them to this country is alike;—a wedding, and little to begin with—a power of children, and little to give them—rack rent for the bit of land, turned out, bag and baggage, for that or the tither—beggary, starvation, sickness, death!—That's a poor Irishman's calendar, since the world was a world, barrin here and there, now and then, when he gets a sight of good fortune, by mistake."

MASON'S AND DIXON'S LINE.—The question is often asked, 'what line is this?' and it is as often answered, 'I don't know.' At the suggestion of an intelligent friend, we state what this line is. It divides Pennsylvania and Maryland, commencing at a point at a certain distance north of Cape Henlopen on the Delaware, and running west to a certain point of longitude. Long and vexatious chancery litigations were had between the proprietaries of Maryland and Pennsylvania, respecting this line. It was finally run and established under an order of the English court of chancery.—The surveyors were two gentlemen of the names of Mason and Dixon. Hence it is called Mason's & Dixon's Line.—*Cincinnati Gazette.*

THE FARMER.

[From the New England Farmer.]
NEW VARIETY OF TURNIP.

At a meeting of the board of Trustees, of the Massachusetts Society for promoting Agriculture, held on Saturday, 10th of January, 1835.

A letter was read from Martin Brimmer, Esq. accompanying a package of turnip seed, with a pamphlet, which he brought with him from Scotland. It was thereupon

Voted, That the thanks of this Board be presented to Mr. Brimmer for his very acceptable gift of the Hybrid turnip seed, and the Trustees also express the hope that the example of Mr. Brimmer may induce other gentlemen when absent to bring back with them new varieties of seeds and fruits, and thereby essentially promote the Agricultural interests of the country.

A Copy of the Record.

BENJ. GUILD, Rec. Sec.

Boston, Jan. 7, 1835.

Sir—I have the honor to send you herewith half a pound of seed of a new variety of Turnip, which I recently procured in Scotland, called "Dale's Hybrid Turnip." It is the cross of the White Globe and the Swedish Turnip, and is found to combine the good qualities of both,—the rapid growth and great size of the former with the nutritive matter and hardness of the latter. I have to remark that this variety has found favor in Scotland, and in the anticipation that it may prove valuable in this country, I place at your disposal the accompanying sample; I also enclose some remarks taken from the "Quarterly Journal of Agriculture," in which the subject is treated more at large, and to which I beg to refer.

I have the honor to be, Sir,

Your obedient servant,

M. BRIMMER.

HON. THOMAS L. WINTHROP,

Pres. of the Mass. Society for Promoting Agriculture.

On a Hybrid Variety of the Turnip.—By Charles Lawson, Seedsman, Edinburgh.

Since the period when Linnæus clearly demonstrated the functions of the anthers and stigmas, numerous additional evidences have been adduced in support of the doctrine of the sexes of plants. The question has long been set at rest, and it would be now, in botany, a heresy of the first order to throw doubts on the theory of impregnation. In fact, that process is performed by the contact of the sexual secretion of the male plant, or of the male organs of the hermaphrodite plant, with the female organs. Upon this hint, botanists have not only observed many of the curious contrivances to which nature has had recourse in rendering sure the progress of impregnation, but have let loose their imagination, and invented others for her. It is well known, that in the animal kingdom, a male and a female of two different species belonging to the same genus, may occasionally, by the force of circumstances, break through the antipathy in which they hold each other, and that a progeny participating of the forms of both parents may result. It might be imagined that in plants such intermixtures should be of more common occurrence. The pollen, wafted by the winds,

or conveyed by bees and flies, may be applied to the stigmas of other species as readily as to those of its own. Yet, whether it be that the germs are impregnated by the pollen of their own flower, before any other pollen reaches them, as is undoubtedly the case in most plants, or that there is an organic inaptitude between the pollen and the stigmas of different species, it so happens, that, in a field where there exist multitudes of flowers of numerous species, many closely allied to each other, one cannot, on searching, find a single hybrid. Nevertheless, that hybrids have occasionally been produced, we have abundant evidence. Kolrueter, for example, crossed the *Nicotiana rustica* and *Nicotiana paniculata*.* The genera *Brassica*, *Geranium*, *Ranunculus*, *Saxifraga*, and others, are supposed by some, from a few original species to have produced their present multiplicity of forms. To the numerous variety of Melons, Strawberries, and other cultivated plants, a like origin has been attributed. In the animal kingdom, hybrids produced in the wild state are extremely rare, and when produced in the domestic state, do not continue in their mixed form. Hybrids of wild plants are also, as has been stated above, comparatively rare; and, as we see the same forms re-appear season after season, we must suppose that if they exist, they are only of ephemeral duration. The case, however, is different in cultivated vegetables, of the crossing of two of which an instance is here related. The crossing here is between the Common Turnip, *Brassica rapa*, and the Swedish Turnip, which some suppose a distinct species, and others merely a variety of the former.

Though there is a considerable number of varieties of the turnip in cultivation, which are more or less held in esteem according to their supposed qualities, the nature of the soil in which they are to be grown, and other circumstances, those in most general use are the White Globe, the Red-Top Yellow Bullock, the Green-Top Yellow Bullock, and the Swedish. The White Globe, grows to the largest size, arrives soonest at maturity, and decays earliest in the season; the Yellows are intermediate between the Globe and the Swedish in their properties; and the Swedish is smallest in size, is latest in arriving at maturity, and often does not decay, till, in the advanced state of the following spring, the plant loses its nutritive properties by pushing out a flower-stem; hence, the Swedish is well adapted and chiefly employed for spring feeding. The Swedish Turnip possesses the greatest nutritive powers, and the largest of this variety yields more nourishment in proportion than the middle-sized ones; while the Globe, which attains the greatest bulk contains the least nutritive matter, and the larger kinds less propor-

* Within these few months, different species of *Calceolaria* have been successfully crossed at the garden of Lord President Hope at Granton, as described by Professor Graham in the Edinburgh Philosophical Journal for July, 1830. All the fine new Pears, Apples and other fruits, of Mr. Knight in England, and those of the Earl of Dunmore in Scotland, which are nowise behind them, have been produced by dusting the stigma of one kind of blossom (previously deprived of its stamens) with the pollen from another.

tionally than the middling-sized ones of the same variety.

New varieties or hybrids of turnips are obtained by cross impregnation. Thus, when two varieties are planted alternately or promiscuously in a plot of ground, when they come into flower the pollen is wafted by the wind indiscriminately over the whole, or carried from one plant to another by insects, when they are in quest of the sweets of the nectary, and applied to the stigmas. But though the means of producing new varieties are simple and easily accomplished, little improvement in this respect has been made in varieties now generally used in field culture.

In all cases of turnip seeds' going through my hands in the course of a season, I keep specimens which are sown at the proper period in drills in my nursery. This is done for the purpose of examining the progress of the plants and the development of their roots during the season; it also enables me to ascertain the correctness of the different stocks of seeds, and to judge of the superiority of one variety over another. Two years ago, my attention was particularly attracted to the produce of the sample of a hybrid or doubly-impregnated sort, the seed of which I received from Mr. Robert Dale, a very intelligent farmer at Libberton West Mains, near Edinburgh. It attracted my attention, first on account of its early growth and maturation; secondly, its fine shape, as will be seen on inspection; thirdly, by the great size to which it attained, in comparison with any sort under similar treatment; and lastly, by its standing the winter equally well with any other turnip except the Swedish.

And conceiving that the great desideratum in the selection of a proper variety of the turnip, is to obtain the greatest possible weight on a given space and at a given expense of manure, this variety seems to be more adapted to this end than any other sort hitherto introduced.

The manner in which it was obtained by Mr. Dale, was the following: In the year 1822 or 1823, he got a few ounces of seed of a new hybrid turnip from James Shireff, Esq. of Baslerridge in Berwickshire. This, Mr. Dale sowed, and he found the produce to resemble the Swedish in shape, but it had too few of the superior properties of that variety. He, therefore, picked out such as had most of the yellow appearance, and planted them along with some of the best Swedish which he could find. This he continued doing for four successive years; and, since that period, he has selected the best roots of the doubly impregnated kind which he could find for raising seed, till they have attained the quality which they now possess.

The manner in which this variety has been obtained, I am aware, is not according to the strict rules which horticulturists would have recommended to be adopted, because, as the hybrids were always planted along with the Swedish for producing seed, and the seed collected promiscuously, that part of the seed which was produced from the Swedish would be much more nearly allied to that variety than the seed of the hybrid. But in this, as in many other instances of improving plants, the point is often attained more from accidental causes than from the adoption of the rules laid down by scientific cultivators. And a

though all the hybrids may not stand in the same relation to the primitive root, the circumstance of the raising the seed being now performed solely by the hybrids themselves, without the assistance as formerly, of the Swedish, will always have the tendency to assist in modifying and correcting any irregularity that may exist. Indeed, judging from the appearance of the present stock, there is nothing which indicates any important consequences to this irregularity in the manner of obtaining the hybrids.

To show in what respect this hybrid is superior to, or differs from, the turnips at present in cultivation, I shall give a list of the kinds sown for different purposes, with a comparison of their properties with that of the hybrid in question.—The turnips in general cultivation are the following:

FOR EARLY USE,

White Globe,	} The hybrid is equal in size to any of these, is closer in the texture, and is as early.
White Tankard,	
Pomeranian Globe,	
Hungarian Globe,	

TO SUCCEED THE ABOVE,

Red Norfolk,	} The hybrid is superior in size, in texture, and in shape, to all of these.
Green Norfolk,	
White Norfolk,	
Green Globe,	
Red Tankard,	
Yellow Globe,	
Bullock's Heart,	

STILL TO FOLLOW THESE,

Purple-top Yellow Bullock,	} The hybrid is superior in size, and, in so far as it has been tried, it stands the winter as well.
Green-top ditto,	
Tankard Yellow	

FOR LATE USE,

Purple-top Swedish,	} The hybrid is superior in size, but shoots to flower earlier in spring, & is not so hardy
Green-top Swedish,	

This hybrid, or doubly-impregnated turnip, therefore, appears to possess properties in general, superior to those varieties which have been enumerated above. It is equal to, or surpasses the yellow, and the other sorts above it, and is only excelled by the Swedish, in the latter being more hardy and later in spring in running to a flower-stem. It is now generally known by the name of Dale's Turnip, or Dale's Hybrid.

The facts which I have stated will, I trust, be considered in this respect interesting, that they show an easy method by which intelligent agriculturists may increase or improve the varieties of the plants which they cultivate.

[From the Cultivator.]

CHENOPodium QUINOA—AND THE POTATO.

The first is the botanical name of a Mexican plant, the culture of which is now arresting the public attention in England. Humboldt says, that this plant, in Mexico, ranks in utility with the potato, the maize and the wheat. The leaves are used as spinach, or sorrel, or as greens; and the seeds in soups and broths, or as rice. The plant is an annual, and resembles French spinach. The seeds are small, yellowish white, and resem-

ble somewhat those of millet. In 1834 seeds ripened in abundance in England for the first time, and as a field plant, it is considered a great acquisition. It is believed it may be cultivated as common as barley, and on any ground which will produce that grain. The Quinoa will no doubt ripen its seeds in the United States, even in our latitude, better than in England, and our consular agents, naval officers, or commercial men, might render a public service by introducing it among us.

When we consider the comparative recent introduction of the potato (*Solanum tuberosa*) among many civilized nations, the prejudices which in many nations for a long time retarded its introduction, and the large space it now occupies in domestic economy, as food for man and beast, in almost every part of the civilized world, these considerations should induce us to give a fair trial to every foreign plant which promises to be useful in our husbandry. The first field culture of the potato in Scotland was in 1739, less than a century ago. They were left in the same spot of ground from year to year; a few tubers were perhaps used in autumn, and the parent plants well covered with litter, to save them from the winter's frost. The progress of the culture was afterwards greatly retarded, by the fact, that "potatoes are not mentioned in the bible," which was deemed a sufficient reason for rejecting them. Ignorance of the proper mode of cooking them, (an evil which has not wholly ceased at this day) also retarded their culture. "A person who had been invited to taste the first potato in the county of Forfar, about 1730, related that the roots had been merely heated, and that they adhered to the teeth like glue, while their flavor was far from agreeable. The food was about to be condemned through the ignorance of the cook, when the accidental arrival of a gentleman, who had tasted a potato in Lancashire, caused the rejected roots to be remanded back to the hot turf ashes, till they became as dainty as they had before been nauseous." "It is only within these forty years that any particular attention has been paid in France to the cultivation of potatoes. They were long regarded as an unwholesome plant, and only fit to be eaten by cattle and the most wretched human beings." It required all the efforts of royal authority, supported by royal example, to eradicate the popular prejudice against them. Now so diversified is the manner of cooking the potato in France, that a gentleman is said to have dined a party of friends, sumptuously, entirely upon potatoes, cooked in thirty-two various modes. "The composition of the potato root is very similar to that of the seeds of the maize and wheat; though, from the dissimilarity in taste and external appearance, this would not be at first suspected; and hence arises the corresponding fitness of all three for food. The principle difference between wheat and potatoes consists in the presence of a substance called *gluten* in wheat."

The detection of this similarity between grain and potatoes, by chemical analysis, led to the experiment of extracting *sugar* from the potato. As we have been inquired of, as to the process of extracting *sugar* from the potato, we subjoin the particulars, as we find them in the Edinburgh Quarterly Journal of Agriculture—the discovery

and the experiments having been first made, we believe, in the state of New-York.

The potatoes are first ground or grated in a mill similar, or the same, as we denominate the grater cider mill, by which they are reduced, with surprising rapidity, to a fine pulp, and from which, by the aid of a sieve and water, the starch, in great purity, is readily obtained. The starch thus obtained, is then dissolved completely in water, heated by steam let into it. A certain quantity of sulphuric acid, or vitriol, is then mixed with it, and heat being applied, the whole of the starch is converted into syrup. This is to be purified from the acid by adding quick lime, with which the acid unites, and then evaporating the liquid. The sugar remains after evaporation, and is used for all domestic purposes. Its taste is that of a delicious sweet, and as an article of diet is probably more healthful, and less oppressive to the stomach, than any other sweet substance in use. It is particularly useful in making sweet meats, and may be used at table as honey. A bushel, or 60 lbs. of potatoes, will give 8 lbs. starch, and 8 or 7½ lbs. sugar. The article, which we here abridge, seems to have been copied from Silliman's Journal, which may contain a more detailed account of the process.

There are various other uses to which this valuable root is now converted, that our ancestors never dreamt of.—From the potato may now be procured bread, starch, jelly, sugar, treacle, beer, brandy, cheese, butter, coffee, tapioca, dyestuffs, size, cleansing liquids, and medicine.

The Russians, (and we have seen a notice of the same having been done in Ohio) obtain from it treacle, or molasses. The Swedes and English obtain from it brandy by distillation. Dr. Anderson obtained a gallon of *spirits* from 72 lbs., of a mild agreeable flavor. The Saxons make from it a kind of *cheese*, which retains its freshness for years if kept in a close vessel. It is prepared by boiling the potatoes, and reducing them, when cold, to a pulp, rejecting the skin; sour milk is added, or else sweet curd, with the whey pressed out, in the proportion of a pint to 5 lbs. of pulp. It is kneaded several times, drained in small baskets, and simply dried in the shade. A French chemist has converted the potato into a substance resembling, and he says superior, to *coffee*. He mixes some best olive oil with a certain portion of dried potato-flour, and then adds a small portion of coffee powder. The Germans incorporate it, after being steamed and reduced to a paste, with the *butter* to be spread over bread. Chemical ingenuity has likewise converted it into substitutes for *arrow-root*, *chocolate*, *tapioca*, and *vermicelli*. The Danes have discovered in the flowers the material for a beautiful yellow dye, solid and durable, which by being afterwards plunged into a blue dye, becomes a perfect green. The potato is always used with excellent effect in steam boilers, for preventing the gathering of a calcareous incrustation on their bottoms. The liquor drawn off in the process of making potato starch, will clean silks, woollens or cottons, without damage to the texture or color. The French administer it, roasted, and with success, medicinally, to their sailors, as a preventive of, and even for, the scurvy.—See Quarterly Journal of Agriculture.

THE BREEDER & MANAGER.

[From the London Lancet.]

LECTURES ON VETERINARY MEDICINE,
Delivered in the University of London by Mr.
Youatt—Lecture XII.

OZENA IN THE HORSE.—WORMS IN THE NOSTRIL
OF THE HORSE.—OZENA AND CORYZA IN CAT-
TLE AND SHEEP.

Ozena is ulceration of the Schneiderian mem-
brane, not always, or often, visible, but recognised
by the discharge of muco-purulent matter, and
from the peculiar fœtor from which the disease
derives its name. It resembles glanders in being
confined in most instances to one nostril, and the
submaxillary gland on the same side being enlarg-
ed; but differs, however, from it, in the gland not
being adherent, and the discharge from its earliest
stage being purulent and stinking.

How distinguished from other Diseases.—
There is sometimes a fetid discharge from the
nostril in consequence of inflammation of the
lungs, or produced by some of the sequelæ or pneu-
monia. When, after rapid congestion, there has
been a breaking down of the substance of the
lungs, and mortification has seemed to have com-
menced during the life of the animal, and also
when vomica have burst, there has been a consid-
erable discharge of purulent matter, distinguish-
ed however from *ozena*, by its usually flowing ir-
regularly, and being coughed up in great quanti-
ties, and more decidedly purulent, and the gland
or glands seldom affected. The discharge from
ozena is constant, muco-purulent, and unattended
by enlargement of the glands. It is of immense
consequence that we should be enabled to distin-
guish the one from the other; for while *ozena* may
sometimes, at least, be manageable, the other is
the invariable precursor of death.

Cause.—The cause of *ozena* cannot always be
discovered. Chronic inflammation of the mem-
brane may assume another and a malignant char-
acter. In severe catarrh the membrane may be-
come abraded, and the abrasions may degenerate
into foul and fetid ulcers. It is not an unfrequent
consequence of epidemic catarrh. It has been
produced by caustic application to the lining mem-
brane of the nose. It has followed hæmorrhage,
spontaneous, or as the consequence of injury. I had
a horse, not many months ago, sadly ill with epi-
demic catarrh; the soreness of his throat almost
precluded the possibility of balling, and in the ad-
ministration of a drench, he struggled and snorted,
and began to bleed profusely from the nose, and,
three days afterwards, the smell from that nostril
was in the highest degree offensive.

In some cases, and those as obstinate as any,
I have not been able to trace any probable cause,
and the health of the animal has not appeared to be
in the slightest degree affected.

The membrane of the nose is highly sensitive
and irritable, and an ulcer, in whatever way form-
ed on it, does not readily heal. It runs on to
gangrene; it destroys not only the membrane, but
the bone beneath, and the cartilaginous septum
does not escape. This is rarely the case in gland-
ers; the ravages of the chancreous ulcers are usu-
ally confined to the membrane. I have seen caries

of the greater part of the superior turbinated bone,
when there was no reason to suspect glanders.—
The ulceration proceeds to a certain point—its
progress is then arrested, usually by nature alone
—the discharge gradually lessens—it loses its
offensive character, and at length ceases. It is a
most annoying disease, for the whole stable is
tainted with the smell, and although the discharge
may almost cease to appear, the stench will re-
main week after week in spite of all our efforts.

Treatment; External applications.—Well,
Gentlemen, we must do something. Local ap-
plications; are they available? I fear not. There
are two sufficient reasons against their use. We
seldom know the place of the ulceration, and if
we did, probably could not get at it. You will re-
collect what I have said about this when treating
of glanders. Some have recommended setons.—
Where are they to be applied? If the seat of ul-
ceration is unknown, the seton will only give use-
less pain. The trephine:—where again shall we
apply it? Some postmortem examinations have
shown, that the frontal sinuses were the seat of
disease. If we could be sure of that in every
case, we might easily get at them. Yet what in-
jection should we use? An emollient one would
be thrown away. A stimulating injection might
convert *ozena* into glanders. Other examinations,
however, have shown that the superior portion of
the central meatus was diseased. What instru-
ment can be contrived to reach that?

Internal Medicines?—I take them to be com-
pletely thrown away. I know nothing of *anti-
septics* in the horse or cattle, and as for *tonics*,
they have all been tried over and over again, and
without the slightest benefit.

Fomentations.—Yet we may do something.—
We may do something, perhaps, under the form
of a local application. The discarded nose-bag,
(undervalued at least by too many practitioners,)
will afford the means of employing an emollient
fomentation. The steam from a bran-mash scald-
ing hot, will probably reach every part of the nasal
cavity, and so afford some chance of being
beneficially applied to the ulcer. It will at least
thoroughly cleanse the part. By means of the
nose-bag and the warm mash, the chloride of
lime may be introduced into the cavity, not only
combining with the extricated gases and removing
the fœtor, but arresting the tendency to decom-
position.

Then there is a digestive—a gentle stimulus to
abraded and ulcerated surfaces, rousing them to
healthy action, and without too much irritating
them—turpentine. We may apply this in the
form of vapour, and in the best of all ways, by
using the fresh yellow deal shavings instead of
bran. This digestive may be brought into con-
tact with every part of the Schneiderian membrane,
and has been serviceable.

The ulcer, however, may not be in the cavity
of the nose, or if it be there, it may bid defiance
to a stimulus so gentle as this, and a more power-
ful one we should hardly dare to use. Then we
have another resource, and one that bids fairer to
be successful than any other with which we are
acquainted. The spring grass;—it is the finest
alterative, depurative, and restorative in our whole
materia medica; and if a salt-marsh should be at
hand, we have still better hopes. The horse to

which I just now referred was turned into a salt-
marsh for five or six months; he came up with
only a faint smell remaining, and that is gradually
disappearing; but then I turned out another horse
in the preceding spring, and as nearly as possible
in the same state, and he became glandered and
died.

WORMS.

These parasites have been found in the nasal
cavity of the horse, or the sinuses connected with
it. A mare had chronic nasal gleet, accompanied
by frequent and distressing cough. Bleeding and
sedative medicines had been tried in vain. The
groom had heard strange stories of worms
and the larvæ of certain insects finding their way
into the nose and the cells connected with it. I
ridiculed the idea, but on the same evening he
blew a small quantity of pepper up the nostril of
the horse, and in his violent sneezing, two small
worms were discharged. I did not see them, and
I have only the word of the groom for the fact,
who with great triumph told me of the circum-
stance on the following morning; but I do know,
that from that time the cough abated, and the ani-
mal soon got perfectly well.

Bourgelat relates a case in which a horse dis-
charged a worm of the filaria species from his
nose. He had been gradually wasting, and he
continued to waste, and died. A post-mortem ex-
amination did not unfold any evident cause of
death, but discovered other worms of the same
species in the frontal sinuses.

CATTLE—FRACTURE.

Cattle are not so much exposed to fracture of
the nasal or superior maxillary bones as the horse
is. The blows that are aimed at them, both by
man and brute, generally fall comparatively harm-
less on the broad expanse of the frontals above,
which, from the strength of their curiously-con-
structed base, almost defy injury. The means pur-
sued to reduce fracture would be the same, with
the important advantage of not having the fear of
glanders before our eyes.

CORYZA IN CATTLE.

Coryza is more frequent in cattle than in the
horse, accompanied by the same mucous, puru-
lent, fetid, excoriating discharge, but not so often
running on to catarrh, bronchitis, pneumonia, and
phthisis.

Causes.—The prevailing causes are the same
overheated houses, or imprudent exposure to cold;
but the membrane of the nose is not so much ir-
ritated, or disposed to inflammation, by ammonia-
cal gas, or other injurious effluvia. A cow-house
may be as injudiciously close and heated as a
stable, but its atmosphere will be of a very differ-
ent character; no pungent vapour will there irri-
tate the Schneiderian or conjunctival membranes,
because the urine of the ox does not contain the
superabundant quantity of ammonia which is
found in that of the horse, and held by so loose
an affinity. There is, however, one unsuspected,
but too powerful occasional cause of irritation
and inflammation of the Schneiderian membrane
in cattle, namely, the dust and gravel of the road.
The ox was not designed to be exposed like the
horse to this annoyance. He has no false nostril
to turn off the current of minute and irritating par-

ticles from the more susceptible parts of the nasal cavity. Oxen driven any considerable distance to fair or market in dry and sultry weather, are sure to suffer, and sometimes materially, from coryza. Dairy men, whose cows have to travel half a mile or more, morning and evening, along a dusty road, wonder that with all their care the beasts should be so subject to hooze. The cause is too palpable, although little suspected by them. The symptoms of coryza are the same—snorting, laborious breathing. The discharge the same; aqueous; transparent at first; and gradually becoming opaque, mucous, purulent, and bloody.

Periodical Coryza.—There is a periodical appearance of coryza in the ox not observed in the horse. During the winter season, and probably from our mismanagement—from undue exposure of the animals to cold, or to extremes of heat and cold—there is a considerable nasal gleet; not interfering much with health, but unpleasant to the eye and troublesome to the animal; and which, in despite of all our medical treatment, will remain. Do not let us be too much alarmed, for when the genial warmth of spring returns, it will disappear as suddenly as came its attack. Yet not always: it has continued purulent, green, bloody, for years, and the health has been scarcely affected, because the Schneiderian membrane has not been previously exposed to the same injurious and debilitating influences as in the horse. Therefore it is that the farmer scarcely regards a cough, although a harassing and long-continued one, in his cattle, for in the majority of instances the beast carries its usual flesh, and yields its full quantity of milk, and it is only when the milk fails, and rapid emaciation is perceived, that he begins to look about him.

Caution to the Practitioner.—You, Gentlemen, I hope, will not be so apathetic, if you have the power to interfere; for cases will occur, and perhaps too frequently for the full maintenance of your professional reputation, in which, as I have just told you, the inflammation will extend to the fauces, and creep down the trachea, and invade the lungs, and lay the foundation for tubercles, vomice, and death.

Treatment.—If you have the opportunity without seeming to look out for, and unnecessarily to make, cases, you will warn the farmer of the imprudence and danger of neglect, where inflammation of any portion of the respiratory passages is evident.

In treating the animal with inflammation of this, the first of the respiratory passages, you will anxiously inquire whether the disease may not have proceeded further. Is there cough, and that plainly giving the animal pain? any increased labor in breathing? diminution of appetite? suspension of rumination? fever? ascertained by the symptoms just enumerated, but more by the pulse. Does that much exceed 40, the natural standard in a healthy middle-sized animal? You will in cattle, as in the horse, best examine the pulse where the submaxillary artery passes over the edge of the lower jaw to be distributed on the face, but you must look for it at least an inch and a half nearer the tuberosity of the lower jaw than you find it in the horse. The degree of animal temperature will likewise guide you as to the existence and extent of fever. You usually ascertain this in

horse by putting your finger in the mouth of your patient; you must not do so here, at least with a horned animal, lest the farmer should suspect that you knew not how to handle a beast. You would obtain the degree of temperature as accurately as you would in the horse, but the farmer has found out another place where with greater ease, and almost equal accuracy, he obtains it,—at the base of the horn. I shall have to show you that the bone of the horn is by far the most vascular one in the frame of the ox,—that it is perforated by innumerable blood-vessels, and that the horn, properly speaking, is either a prolongation of the cuticle, or is most intimately united with it, and, at its base, not thicker than it; and therefore when grasped by the head, giving the temperature of the blood flowing immediately underneath. The farmer knows no other place at which he may ascertain the heat of the blood, and you must humour him by doing that which all who are much used to cattle invariably do.

Proper medicine and dose.—You will be guided by the degree of fever. If little or none is indicated, a warm mash, and a dose or two of cooling medicine, will probably set all right. The medicine will be that which I have recommended for the horse—the digitalis, tartarised antimony, and nitre, in the same proportions, but only in half the quantity. I would lay this down as a rule, that the ox, into whose true digestive stomach your medicine may be introduced at once, when given in the form of a drink, requires but half the quantity which you would give to the horse, in whose vascular, half cuticular stomach it is received. Our continental neighbours, and some English practitioners, erroneously reverse this.

The dose must depend on the degree of fever; but in usual cases, and for a moderate-sized animal, I should consider half a drachm of digitalis, three quarters of a drachm of tartarised antimony, and two drachms of nitre, a medium dose. And, once for all, I would state, that cattle medicines, unless those which are designed to be stomachic, and I do not know that I should often except them, should be given in the form of drink. They then pass at once into the fourth or true stomach, and produce their effect; but a ball, by its weight, breaks through the curiously-constructed œsophagean canal which I shall have to describe to you, and enters the cuticular macerating reservoir, the rumen, where the only effect it can produce will be a mischievous one, for it will give an unpleasant taste to the food, and nauseate the animal, and lead to the cessation of rumination, and be followed by indigestion, extrication of gas, and tympanites of the stomach, and thus necessarily aggravate the previous disease.

If the inflammation has spread, and fever exists, it will be prudent to bleed and physic; but the disease has now assumed a new character; it is catarrh, or something worse, and the treatment to be pursued will be considered under the proper heads.

SWELLINGS.—To scatter swellings on Horses or other cattle, take two quarts of proof whiskey, or other proof spirits, warm it over coals, but not to blaze—dissolve it in a pint of soft soap—when cool, put in a bottle, and add one ounce of cam-

phor. When dissolved it will form the liquid Opodeldoc, and is then ready for application, forming a cheap and useful remedy. When the swelling is on the leg, or any part that will receive a bandage, such bandage should be applied, and wet with the Opodeldoc.

THE GARDENER.

[From the Horticultural Register.]

ON THE CULTIVATION OF CELERY.

It appears to me that a few practical hints on the cultivation of this useful and delicious vegetable might prove interesting and serviceable to many of your readers. I beg to premise that it is a mere detail of the methods I have practised this summer, by which I have raised celery in heads of two and two and a half feet high, of which twelve to eighteen inches are blanched and tender; they are single heads, without offsets, and many four and five inches in circumference. This method has one convenience, which is, that the young plants are raised in the open ground, without glass or hot-bed.

In the beginning of May, later or earlier, as the season may indicate, dig and pulverise well about six square feet of well manured and open ground—water it very lightly, but thoroughly, with a nose on the watering-pot, early in the day, then sow your seed and water again thoroughly in the same way. Cover up this bed lightly with a double layer of Russia mat, which should be dry, and kept down at the corners with stones; the sun, striking on the mats, penetrates them, and causes a gentle moist heat to rise from the earth; this is the most favorable state of an atmosphere for the vegetation of seeds, and the celery, particularly if not fresh, is very difficult on this point; the covers should be maintained in as dry a state as possible, (after heavy rains, the upper mat might be changed,) because, if wet, considerable evaporation takes place in the night, which is always productive of cold, and would be apt to rot the tender shoot just piercing the seed; on the other hand, if dry, it prevents the escape of heat when the sun's rays have left the earth, and retains underneath sufficient warmth to prevent any check in the vegetation; in a fortnight or three weeks, according to the season, little yellow and white sprouts will appear; when these are one quarter of an inch high, the upper cover should be removed, that there may not be too much weight on the young plants, and if the weather continues mild, in a few days afterwards, remove the other. If well watered in the beginning, it will scarcely need any further moisture during the first process; but those who practise this method will hardly be restrained from peeping under the mats once or twice during the fortnight, when, if sultry weather has prevailed, their own judgment will guide them on this head.

The second part of the method is to have another piece of ground, double the size of the former, prepared in the same way, and when the young plants are in their fourth leaf, or about two inches high, take them up and transplant them carefully into this fresh bed, about one inch asunder, first trimming the roots a little.

If well watered and weeded, by the first of July

they will have attained sufficient growth to be removed into trenches, which should be prepared in an open, well exposed spot, by digging them two spades deep and two and a half feet wide, leaving three or four feet distance between the trenches; on this space is to be piled up, like a bank, the earth taken from the trenches. Put about four inches of good manure at the bottom of each trench, and dig it in; take up the plants, and previous to putting them into the earth, trim the roots very carefully, being sure to cut off the end of the tap root, and eradicate all little shoots and radicles, where the heart joins on to the root, as these shoot up and produce that mass of small heads seen in our markets, instead of one large, solid handsome plant; place them about three inches distance and water well for the first week. As the plant grows, gently fill in the trench with the earth on each side, taking care not to throw in large lumps, which twist and contort the celery, and spoil its beauty; and continue earthing up until there is a bank above ground as high as the trench was deep.

I prefer digging the trenches east and west, because the bank on each side shades the young plants in July and August from the rays of the hot sun, and in September and October, when it is desirable the celery should advance as much as possible, the southern bank, earthed up, imbibes the heat and retains it.

I believe, by covering up the trenches well with pine and savin boughs, it may be dug fresh all the winter; but I have placed mine in an upright position in the cellar, half covered with earth and kept moist—they appear to suffer but little.

I have been rather explicit, and given my reasons for each operation at the risk of being thought too prolix; but, whenever I set earnestly to cultivate a plant, I have generally found directions in books rather too vague, here and there a link wanting in the chain, which gave me trouble to annex; those, therefore, who are well acquainted with this process, must excuse this in favour of those who are not so efficient.

Of celery there are but few varieties worth cultivating; we prefer the white and red solid stalked upright, as being much sweeter than the large species.

For the last two or three years a series of most interesting experiments have been prosecuted in Europe, all of which tend to prove that most plants, after absorbing their by roots, the nourishing juices of the earth, select those which are necessary for their growth, then through other vessels reject and leave behind them the refuse, a kind of exuvie. This, although perfectly useless to this tribe of plants, may become good manure, or at least not be injurious to another tribe, which will then succeed and thrive on the same spot; or it may be that the first plant only takes up those juices suited to it, and leaves undisturbed those adapted to the second. Something of this kind has been for years proved by the practical horticulturist and agriculturist, they having discovered the utility and advantage of rotation crops, although the reasons have been hitherto concealed even from the man of science. Thus McIntosh in his *Practical Gardener*, states, and others have proved it also, that celery constitutes an excellent preparation for asparagus, onions, and cauliflowers; tur-

nips or potatoes for cabbages and greens. The farmer also has his regular succession of seeds. It may also be that manure not only renews the exhausted juices, but also by some invisible and slow process, perhaps continued fermentation, converts these exuded remains of vegetables into gaseous forms, by which they are removed from the soil. In fact, the speculations on this subject are numerous, but it is probable they will be set at rest by the philosophical inquiries still pending. The last notice I have seen respecting this important question, is that a paper was read on the progress of researches made on the secretions from the roots of vegetables, by Professor Dunbar of Scotland, before the Section of Natural History, at the late great meeting in Edinburgh of the Association for the Advancement of Science. I am not aware that the contents of this paper have been made public, but I have taken steps to lay them before the readers of the Register, at as early a date as possible.

J. E. T.

[From the New York Farmer.]

Suggestion relative to Farmers and Gardeners' Work for February. By S. F.

"Friends, books, a garden, and perhaps his pen,
Delightful industry enjoyed at home,
And nature in her cultivated trim
Dress'd to his taste, inviting him abroad—
Can he want occupation who has these?"

Although stern winter rules, with scarcely any diminution of his power during this month, still every one who has a garden, including all the farmers in the country, should remember

"How various his employments whom the world
Calls idle!"

What! the busy world call him an idler whose industry supplies the living with food? Indeed there is an impression—that he who tills the soil in enlightened lands is, when winter reigns, less active in mind and body than the savage who roams the broad forests in quest of his daily food. Those who indulge this impression have figured to themselves beings residing in the bleak and dreary country, with their cellars supplied with cider, pork and sauce,—their barns filled with hay, and their fires kept brisk and crackling. They look upon a farmer as one who, in winter, lives to eat pork and cabbage, drink cider, smoke his pipe, and then go to bed. Fortunately and happily they, whose lives in this season of the year have served to spread such an impression, are decreasing in number. It may now be said, that there is, in winter, more employment of mind and body than formerly among farmers and gardeners. Is it not a consequence of the progress of knowledge and the arts, that the active and busy season will encroach upon, and shorten that which has hitherto been considered one of inactivity? Will not the increasing wants of mankind, and the achievements in science and arts, furnish the farmer with new sources of employments? Will not

"Books, a garden, and perhaps his pen,"

in addition to other calls of duty, render the cold months those of the greatest bodily and mental activity? Will not this activity be very conducive to health and happiness? Will it not give a greater relish for the more toilsome labor of the warmer and hotter season? All who best know man, will answer in the affirmative. Doubtless many

slothful habits have been contracted and many views engendered, from the want of more mental and bodily exercise or business. Those who are continually active in body and mind, are the least liable to fall off from their industrious and virtuous habits. Providence has so constituted things, that those who assiduously cultivate the whole man, derive the greatest pleasure in the changes of the season, and in the discharge of the duties peculiar to them. With how much more rational, and with how much higher pleasure, will that farmer hail the return of vivifying warmth, who has spent his winter evenings as industriously with his books and pen as he has done the days in

"Delightful industry enjoyed at home,"

than that one who has looked upon the winter as merely a season of cessation from the labors of summer. Inactivity increases the repugnance to action. This is true, both in reference to mental and bodily exertion. Society abounds in numerous and unhappy examples of both. Those who have discontinued study and writing for any considerable time, well know with what mental struggles the mind is brought back to its former discipline. So it is with him, whose principal duties of the winter have been to eat, drink, and sleep,—he finds it necessary to summon up resolution to undertake vigorously the labors of the opening season. If, therefore, farmers and gardeners would wish to act in accordance with nature, if they wish to pay deference to the indications of Providence, and if they wish to enter upon every change of season, and its every duty, with the greatest possible zest, let them imbibe fully the spirit of the lines at the head of this article. On the supposition that our readers will take our advice, and furnish us with the results of their reading, observations, and practice, we will throw out a few hints on their duties for the next month.

Health.—During this and the next month be very careful of the stomach and the feet. Avoid overloading the former, and keep the latter dry, clean and warm. From misusing these portions of the body during the trying months of February and March, many a farmer and gardener have spent April and May on their beds, instead of their fields.

Books for Diary and Accounts.—If these are not already furnished, by all means obtain them immediately on reading this article. They will not only furnish you great satisfaction, but will tend very much to insure your success and prosperity.

Planting.—Every farmer and gardener should fully revolve his plans, and estimate the efficiency of his means.

Preparing.—Every possible preparation for spring work should be made this month.

Manure.—This is the month in which most can be done in preparing manure for early crops. If coarse yard manure is put in large heaps, and not trod down to exclude air, it will undergo a gradual fermentation, and be in fine condition for corn in the hill, and for other purposes. In this way all the manure in the yard may be ready for spring use. If other materials are used with the dung in compost, the heap should if possible be occasionally wet with the liquid manure. Indeed all the liquid and drainings should go on the heap, and there should be materials sufficient to absorb

Hot Beds.—Manure for hot beds should be kept from drenching rains, and turned over several times. For the beds select a warm dry place, protected from mice. Let the dung be 18 to 24 inches deep. After it has been stirred and heated for two or three days, take off the sash or straw; cover the surface with good soil; on this sow about the last of this month, or early in March, cabbage, lettuce, tomato, and egg-plant. Among plants that may be forced are asparagus, kidney beans, peas, potatoes, radish, cucumbers, and rhubarb or pie plant. In absence of experience, judgment and care will generally give success. There are various and pleasing ways of forwarding vegetables.

Pruning.—This may be done in February, but nearer the time of the development of the buds is better. Moderate pruning is best.

Transplanting Trees.—Should the ground thaw this month, dig around all those trees you wish to remove, and on the return of frost, take them up with the ball of earth on them. If a tree be removed without disturbing the roots, it matters little at what season it is transplanted.

Potatoes and Beans.—Those who have to buy seed potatoes and beans, particularly Lima beans, should be on the look-out for them. Their scarcity will cause them to advance in price until after planting time.

Live Stock.—At this time it is of importance to begin to nurse and strengthen most kinds of live stock: horses and oxen, to prepare them for the season of labor: cows and sheep, to enable them to bring forth vigorous offsprings. The same is necessary for breeding sows, and for poultry.

MISCELLANEOUS.

CULTURE OF SILK.

The manufacture of silk is all that is wanting in this country to complete our system of domestic manufactures. It is only within a few years that wool and cotton factories have been extensively and permanently established. In these branches, particularly the latter, we have shown that American industry and ingenuity can rival European, and compete with the most successful manufactures of Great Britain in foreign markets. This result gives assurance of success in other branches. Numerous experiments in various parts of the Union have demonstrated the suitability of our climate to the culture of silk. A Washington correspondent of the Albany Argus, speaking of a machine exhibited by a Mr. GAY for reeling and manufacturing silk, justly remarks "that the establishment of the manufacture would greatly encourage the culture, and would be the means of furnishing a supply of the domestic material much sooner than it could otherwise be expected." We shall have the advantage over England in this manufacture when it shall be once established; for her climate will not permit of its culture. Although as with cotton, she imports all the raw material, the manufacture of silk has become one of the most important branches of her national industry. The writer above referred to states, that several years since England paid in one year for raw silk nine millions of dollars; since then the quantity required by her factories

has probably much increased. Even France, whose climate permits her to cultivate silk on a large scale, imports the raw material to an immense amount. This is a great field for the profitable application of capital and ingenuity, as yet untouched in this country, and in which new triumphs await the efforts of American skill.—*Amer.*

AGRICULTURAL INSTRUCTION IN PRIMARY SCHOOLS.—The agriculture of Bavaria is said to have been improved more rapidly, in the last half century, than that of any other country, Scotland, perhaps, excepted. Before the French revolution, it was behind that of the other German States. The lands then mostly belonged to the religious establishments. The cultivators merely lived; they did not thrive. When the lands were sold, they were made into small parcels, and almost every man became the proprietor of the portion he cultivated, upon a long credit. The great impulse to improvement was given to the young generation, in the primary schools. In these were taught, both by books and examples, AGRICULTURE AND GARDENING. For this purpose, catechisms of gardening, of agriculture, of domestic economy, of forest culture, of orchard culture, &c. in small 12mo. volumes, with wood-cuts, were introduced as class books for boys, and the like on the management of silk worms, household economy and cookery, for the girls; and there was attached to every district school at least half an acre of land, for experimental gardening, where the scholars received recreation and instruction, in the hours of exemption from study, from the master, in the practice of gardening. And it was made an indispensable qualification in teachers, to be competent to give this instruction. "Since these schools have come into action," says a late traveller, "an entirely new generation of cultivators has arisen, and the consequence is, that agriculture in Bavaria is carried to a higher degree of perfection than it is any where else in the central states of Germany." "The result of the whole of the information procured, and of the observations made, is, that we think the inhabitants of Bavaria promise soon to be, if they are not already, the happiest people in Germany. The climate of the country will prevent its agriculture and gardening from advancing beyond a certain point, but to that point both will very soon be carried."

The salutary influence of agricultural and horticultural instruction, in common schools, has not been confined, in Bavaria, to the improvement of the soil. As consequences which naturally follow the improvement of agriculture, the roads, bridges and other public works, have undergone a corresponding improvement; individual comforts have been greatly multiplied, business of every kind has been improved, and human intellect, reanimated as it were, by the magic pen of a Hazzi, has burst its cerements, and become an efficient aid in the noble work of improvement. The public roads are all lined with ornamental fruit-bearing or forest trees—and furnished with guide-boards, mile-stones, and seats, at intervals, of stones or sods, for the weary traveller. This novel sort of education, and the blessings which have flown from it, and the still greater blessings which appear in prospect, have resulted from the

wise provisions of the government, aided, and efficiently aided, by the active and patriotic philanthropy, M. of Hazzi, the editor of an agricultural journal at Munich, and author of the school catechisms of which we have spoken.

Nineteen out of every twenty of the children of our common schools, would be benefited, while the twentieth would not be injured, by the elementary studies which have proved so beneficial to Bavaria. "As the twig is bent, so is the tree inclined." Early impressions have an influence through life; and it is all-important that these early impressions should be of the right kind—such as are best calculated to advance the interests of the individual, and the good of the public. What can conduce more to these desirable ends than to instruct our youth in the elementary knowledge of the business which they are to follow through life, and upon their success in which must materially depend their respectability, their happiness and their worth to society. Husbandry is a business in which there is always something to learn, even in the longest term of life. The sooner the study is begun, the more proficiency will be made; and the more one becomes acquainted with its varied sources of true enjoyment, the stronger is his attachment to its pursuits.—*Cultivator.*

Maternal Attachment.—A celebrated Preacher, named Bucholz, who resided at Hasmark, in Hungary, had occasion to go to the village of Emperies, distant about twenty English miles from his own place of abode. He travelled on foot, and took with him a small terrier slut, then in the last week of her pregnancy. After having been detained several days at Emperies by floods, he was compelled to return home without his dog, which in the mean time had brought forth a litter of five puppies. He had not been in the house an hour, when, to his surprise, the slut came in bearing a puppy in her mouth, which she carefully placed upon the mat where she ordinarily lay, and immediately rushed out of the house again on the road to Emperies. In the space of twenty-four hours, she went and returned four times more, on each occasion bringing home a puppy in her mouth. It is hardly necessary to state that the puppies were quite dead as the mother brought them into the house. As the poor creature laid the last puppy upon the mat, she could scarcely stand for weariness; whined and trembled, looking upon her dead puppies, and after walking once or twice round the mat, she laid herself down beside them and died in a few minutes. In 24 hours the animal had run about 180 miles.

The Temperance Cause.—Since 1826, more than 5000 temperance societies have been formed in the United States, embracing 1,000,000 of members, many of them persons of the first respectability for character, talents and influence.

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A card to subscribers—Prolific Lima bean—Guinea corn—The farmer—Education of the stomach—Irish Fortune—Mason's and Dixon's line—Dale's new hybrid turnip—Chenopodium quinoa and the potato—Youatt's lectures on diseases of stock—To scatter swellings on cattle and horses—On the cultivation of celery—February to farmers and gardeners—Culture of silk—Agricultural instruction in primary schools—Maternal attachment—The temperance cause—Prices current—Advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM.	TO.
BEANS, white field,	bushel.	2 00	2 50
CATTLE, on the hoof,	100lbs.	5 50	6 00
Slaughtered,	"	3 00	4 00
CORN, yellow,	bushel.	63	04
White,	"	60	—
COTTON, Virginia,	pound.	12	17 1/2
North Carolina,	"	14	16
Upland,	"	17	18 1/2
FEATHERS,	pound.	35	37
FLAXSEED,	bushel.	1 62	1 75
FLOUR—best white wheat family, ..	barrel.	6 00	6 50
Do. do. baker's,	"	5 50	6 00
Do. do. Superfine,	"	4 75	5 00
Super Howard street,	"	4 62	4 75
" wagon price,	"	4 66	4 62
City Mills, extra,	"	4 87	5 00
Do.	"	4 70	—
Susquehanna,	"	—	—
Rye,	"	—	—
GRAIN SEEDS, red Clover,	bushel.	5 00	5 50
Timothy (herds of the north) ..	"	2 50	3 50
Orchard,	"	3 00	—
Tall meadow Oat,	"	2 00	2 50
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	16 00	—
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	5 75	6 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	15	—
second,	"	13	—
refuse,	"	11	—
LINE,	bushel.	30	33
MUSTARD SEED, Domestic,	"	5 00	6 00
OATS,	"	30	33
PEAS, red eye,	bushel.	—	—
Black eye,	"	87	1 00
Lady,	"	100	—
PLASTER PARIS, in the stone,	ton.	3 00	—
Ground,	barrel.	1 37	—
PALMA CHRISTA BEAN,	bushel.	1 50	1 56
RAGS,	pound.	9	4
RYE,	bushel.	62	65
TOBACCO, crop, common,	100 lbs	4 25	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"	—	—
" for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	9 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	5 00	10 00
Rappahannock,	"	—	—
Kentucky,	"	6 00	9 00
WHEAT, white,	bushel.	1 05	1 10
Red,	"	1 00	—
WHISKEY, 1st pf. in bbls.	gallon.	28 1/2	29 1/2
" in hhds.	"	28	—
" wagon price,	"	24 1/2	25
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	—	1 50
To Wheeling,	"	—	1 75
WOOL, Prime & Saxon Fleeces, ..	washed, uncash	50 to 60	24 to 26
Full Merino,	"	44	50 22 24
Three fourths Merino,	"	37	44 22 24
One half do.	"	33	37 22 24
Common & one fourth Meri. ..	"	30	33 20 22
Pulled,	"	31	33 22 24

A FINE BULL.

FOR SALE, a young Bull, ten months old, sired by the thorough bred bull Apollo, (of the Gloucester Stock) and out of a very fine cow of seven-eighths Durham S. H. blood, consequently fifteen-sixteenths Durham S. H., is for sale a bargain if immediate application be made; he is truly a splendid calf, and will be sold for \$100 cash. Apply to
Jas 13
I. I. HITCHCOCK,
American Farmer Establishment.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	\$3 00	\$5 00
BACON, ham, new,	pound.	11	—
Shoulders,	"	8	—
Middlings,	"	—	—
BUTTER, printed, in lbs. & half lbs. ..	"	25	37
Roll,	"	15	25
CIDER,	barrel.	—	—
CALVES, three to six weeks old, ..	each.	3 00	6 00
COWS, new milch,	"	17 00	30 00
Dry,	"	6 00	10 00
CORN MEAL, for family use,	100lbs.	1 50	—
CHOP RYE,	"	1 50	—
EGG,	dozen.	19	20
FISH, Shad, salted,	barrel.	5 75	6 00
Herrings, salted, No. 1,	"	4 75	—
Mackerel, No. 1, 2 & 3,	"	5 12	7 00
Cod, salted,	cwt.	2 50	3 00
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	31	50
LARD,	pound.	8	9
ONIONS,	bushel.	62	75
POULTRY, Fowls,	dozen.	1 50	2 25
Ducks,	"	2	50
POTATOES, Irish,	bushel.	40	62
Sweet,	"	—	—
TURNIPS,	"	37	50
VEAL, fore quarters,	pound.	34	4
Hind do.	"	64	—

ADVERTISEMENTS

CLOVER SEED AND SEED OATS.

350 bush. Clover Seed
2500 do Seed Oats, for sale in lots to suit purchasers,
by
LUTHER J. COX,
feb 17 4t
Corner Calvert and Pratt st.

A VALUABLE JACK.

FOR SALE—A first rate Maltese Jack, about 10 years old, exactly 14 hands high, and one of the quickest performers and surest foal-getters ever known in this country; having been several years imported and his character thoroughly proved by his stock, which is of the first quality.

Several fine Jacks have been sold in this state at from 800 to 1000 dollars. The one now offered is certainly not inferior to the best of these, and will be delivered in Baltimore for \$500 cash, and for no other reason than that his owner is not sufficiently encouraged to keep him where he now is. Address
I. I. HITCHCOCK,
feb 17
Baltimore.

BULBOUS ROOTS.

HYACINTH'S, Tulips and a general assortment of Bulbous Roots, suitable for the present season, for sale low at this establishment by
Oct. 28.
I. I. HITCHCOCK.

AMERICAN FARMER ESTABLISHMENT,

No. 16 S. Calvert street, Baltimore, Md.
COMPRISING a Stock and Experimental Farm; a Nursery and Seed and Flower Garden; a Store for the sale of Field and Garden Seeds and Agricultural Implements and Books; a general Agricultural and Horticultural Agency; the Publication Office of the "Farmer & Gardener, and Live Stock Breeder & Manager," and of "Hints to Farmers;" and an Office of APPLICATION for Farmers, Gardeners, Overseers, Managers, &c.

I. IRVINE HITCHCOCK, Proprietor.
This establishment is now in full and successful operation, nearly every department, especially that of seeds, being well supplied with articles of the most desirable quality.

Orders by wholesale or retail will be promptly executed on terms that cannot fail to give entire satisfaction to purchasers.

As the limits of an ordinary advertisement preclude the possibility of conveying an adequate idea of the variety and the value to the cultivator and dealer in seeds, of the contents of this establishment, a comprehensive and descriptive PROSPECTUS AND CATALOGUE has been printed and will be sent gratis to any gentleman who will transmit to the proprietor address (post paid) for that purpose.

BROOD MARE FOR SALE.

FOR SALE a first rate coal black Brood Mare—moderate. Apply to
Feb. 10.
ROBT. SINCLAIR,
at Sinclair & Moore's.

BENE SEED.

JUST RECEIVED at this Establishment, and for sale, by the pound or in 12 1/2 cent papers, a small quantity of the seed of this most valuable plant. It is very efficacious in the Bowel Complaints of children, and not difficult to be administered. The seed should be planted in April, in hills like beans, and the leaves will be in perfection in June. Two or three leaves being put into a tumbler of spring water, for 10 or 15 minutes, convert it into a mucilage, which being tasteless, children readily drink.
Feb. 3.

SUPERIOR CATTLE FOR SALE.

OF the Devon, and Devon & Short Horn blood, at Brookland Wood Farm, the residence of Richard Caton, ten miles from Baltimore, on the Susquehanna Rail Road, and on the Falls Turnpike Road, consisting of
Devon Bulls, Heifers and Calves, of all ages of each denomination, from 8 months to 4 years—price, forty to one hundred dollars each, according to age and quality.
Devon and Durham Bulls, the offspring of Devon Cows, by the Short Horn Durham Bull Tecumseh. It is supposed by those persons in England who have dairies of this species, that they will be found superior to all others, uniting the beauty of form, hardness of constitution, propensity to fatten, and richness of milk appertaining to the Devon blood, and product of milk of the Durham—price, forty to one hundred dollars. Apply to
Feb. 3, 1835. THOMAS BEVAN, Manager

GOOSEBERRY TREES.

THE subscribers have just received from England, in fine order, 500 Gooseberry, of two and three years growth, raised with single stem, consisting of twenty of the best and largest varieties of the usual assorted colors, regularly named, and as they were obtained from a very respectable nursery, immediately in the neighborhood, where the largest and best Gooseberries are raised, we have no doubt of their being a very superior parcel; price per tree 31 1/2 cents, or \$3 per dozen. Also, by the same vessel, 500 each European Lime or Linden and Larch Trees, 3 to 4 feet high, all which are planted in our Nursery, where we have a large stock of Nursery articles, of which we name the following: Of the Ornamental Trees, Chinese Ailanthus, or Tree of Heaven, Silver leaved Maple, Sugar Tree, and the European Linden or Lime Trees, all from 8 to 12 feet high, well suited for planting in streets, &c. Of Shrubs, we have the European and India Roses Current, Gooseberry and Strawberry, of all the best varieties; also Apple, Pear, Plum, Peach, Apricot, Nectarine, Quince, English Walnut, and the deservedly celebrated Catawba, and other Grape plants of two years old, by the hundred, dozen or single plant, and as we cultivate the largest proportion of the Catawba, we can dispose of cuttings of that kind low, by the thousand, provided orders are received by trimming time. Thorn Quick Pyracantha and Honey Locust, for hedges; Asparagus, Hop and tart Rhubarb roots, Flowering Vines, and an extensive assortment of superb double Dahlias. For prices and other useful particulars, see our Catalogue, to be had gratis at the Nursery, or at the Store, Light street, near Pratt street, Baltimore, where orders will be promptly and carefully attended to.
Feb. 3, 1835. SINCLAIR & MOORE.

MORUS MULTICAULIS.

THE subscriber has on hand a few hundred of this celebrated Tree, unrivalled in the quality of its leaves as food for the silk worm, for which he is ready to receive orders (accompanied by the cash) with particular directions for the delivery of the trees on or after the first of Nov. next. Price 50 cents each, \$5 per dozen, or \$40 per hundred.

The success and ease with which this tree is propagated, the extraordinary quickness of its growth, the superiority of its leaves over all others for the silk culture, and its uncommon luxuriance and beauty, altogether recommend it to the favourable notice of every farmer as a most valuable acquisition.
aug. 26
I. I. HITCHCOCK,
Amer. Far. Estab.